

AMENDMENTS TO THE CLAIMS

Claim 1. (original) A method for forming a cargo moiety-cochleate comprising:
introducing a cargo moiety to a liposome in the presence of a solvent such
that the cargo moiety associates with the liposome; and
precipitating the liposome to form a cargo moiety-cochleate.

Claim 2. (original) The method of claim 1, comprising the step of introducing a solution of
the solvent and the cargo moiety to an aqueous liposomal suspension.

Claim 3. (original) The method of claim 2, wherein the solution is added by dropwise
addition, continuous flow addition, or in a bolus.

Claim 4. (original) The method of claim 1, comprising the step of introducing the cargo
moiety to a liposomal suspension comprising the solvent.

Claim 5. (original) The method of claim 4, wherein the cargo moiety introduced in the
form of a powder or a liquid.

Claim 6. (original) The method of claim 1, where an antioxidant is introduced to the
liposomal suspension.

Claim 7. (original) The method of claim 1, wherein the liposomal suspension comprises a
plurality of unilamellar and multilamellar liposomes.

Claim 8. (original) The method of claim 7, comprising the step of filtering or mechanically
extruding through a small aperture the liposomal suspension such that a majority
of the liposomes are unilamellar.

Claim 9. (original) The method of claim 1, comprising precipitating the liposome with a
multivalent cation to form a cargo moiety-cochleate.

Claim 10. (original) The method of claim 1, wherein the solvent is a water miscible solvent.

Claim 11. (original) The method of claim 1, wherein the solvent is at least one solvent selected from the group consisting of dimethylsulfoxide (DMSO), a methylpyrrolidone, N-methylpyrrolidone (NMP), acetonitrile, alcohol, ethanol, dimethylformamide (DMF), ethanol (EtOH), tetrahydrofuran (THF), and combinations thereof.

Claim 12. (original) The method of claim 1, comprising the step of removing solvent from the liposome by dialysis and/or removing solvent from the cochleate by washing.

Claim 13. (original) The method of claim 1, wherein the ratio of the lipid to the cargo moiety is between about 0.5:1 and about 20:1.

Claim 14. (original) The method of claim 1, wherein the ratio of the lipid to the cargo moiety is between about 20:1 and about 20,000:1.

Claim 15. (original) The method of claim 1, wherein the cargo moiety is hydrophobic or hydrophilic or hydrosoluble.

Claim 16. (original) The method of claim 1, wherein the cargo moiety is amphipathic.

Claim 17. (original) The method of claim 1, wherein the cargo moiety is an antifungal agent.

Claim 18. (original) The method of claim 1, wherein the cargo moiety is at least one member selected from the group consisting of a vitamin, a mineral, a nutrient, a micronutrient, an amino acid, a toxin, a microbicide, a microbistat, a co-factor, an enzyme, a polypeptide, a polypeptide aggregate, a polynucleotide, a lipid, a carbohydrate, a nucleotide, a starch, a pigment, a fatty acid, a saturated fatty acid, a monounsaturated fatty acid, a polyunsaturated fatty acid, a flavoring, an essential oil or extract, a hormone, a cytokine, a virus, an organelle, a steroid or

other multi-ring structure, a saccharide, a metal, a metabolic poison, an antigen, an imaging agent, a porphyrin, a tetrapyrrolic pigment, and a drug.

Claim 19. (original) The method of claim 18, wherein the drug is at least one member selected from the group consisting of a protein, a small peptide, a bioactive polynucleotide, an antibiotic, an antiviral, an anesthetic, antipsychotic, an anti-infectious, an antifungal, an anticancer, an immunosuppressant, an immunostimulant, a steroidal anti-inflammatory, a non-steroidal anti-inflammatory, an antioxidant, an antidepressant which can be synthetically or naturally derived, a substance which supports or enhances mental function or inhibits mental deterioration, an anticonvulsant, an HIV protease inhibitor, a non-nucleophilic reverse transcriptase inhibitor, a cytokine, a tranquilizer, a mucolytic agent, a dilator, a vasoconstrictor, a decongestant, a leukotriene inhibitor, an anti-cholinergic, an anti-histamine, a cholesterol lipid metabolism modulating agent and a vasodilatory agent.

Claim 20. (original) The method of claim 18, wherein the drug is at least one member selected from the group consisting of Amphotericin B, acyclovir, adriamycin, carbamazepine, ivermectin, melphalen, nifedipine, indomethacin, curcumin, aspirin, ibuprofen, naproxen, acetaminophen, rofecoxib, diclofenac, ketoprofin, meloxicam, nabumetone, estrogens, testosterones, steroids, phenytoin, ergotamines, cannabinoids, rapamycin, propanadid, propofol, alphadione, echinomycin, miconazole, miconazole nitrate, ketoconazole, itraconazole, fluconazole, griseofulvin, clotrimazole, econazole, terconazole, butoconazole, oxiconazole, sulconazole, saperconazole, voriconazole, ciclopirox olamine, haloprogin, tolnaftate, naftifine, terbinafine hydrochloride, morpholine, flucytosine, natamycin, butenafine, undecylenic acid, Whitefield's ointment, propionic acid, caprylic acid, clioquinol, selenium sulfide, teniposide, hexamethylmelamine, taxol, taxotere, 18-hydroxydeoxycorticosterone, prednisolone, dexamethazone, cortisone, hydrocortisone, piroxicam, diazepam, verapamil, vancomycin, tobramycin, teicoplanin, bleomycin, peptidoglycan, ristocetin, sialoglycoproteins, orienticin, avaporcin, helevocardin, galacardin,

actinoidin, gentamycin, netilmicin, amikacin, kanamycin A, kanamycin B, neomycin, paromomycin, neamine, streptomycin, dihydrostreptomycin, apramycin, ribostamycin, spectinomycin, caspofungin, echinocandin B, aculeacin A, micafungin, anidulafungin, cilofungin, pneumocandin, geldanamycin, nystatin, rifampin, typhostin, a glucan synthesis inhibitor, vitamin A acid, mesalamine, risedronate, nitrofurantoin, dantrolene, etidronate, nicotine, amitriptyline, clomipramine, citalopram, dothepin, doxepin, fluoxetine, imipramine, lofepramine, mirtazapine, nortriptyline, paroxetine, reboxetine, sertraline, trazodone, venlafaxine, dopamine, St. John's wort, phosphatidylserine, phosphatidic acid, amastatin, antipain, bestatin, benzamidine, chymostatin, 3,4-dichloroisocoumarin, elastatinal, leupeptin, pepstatin, 1,10-phenanthroline, phosphoramidon, ethosuximide, ethotoin, felbamate, fosphenytoin, lamotrigine, levetiracetam, mephenytoin, methsuximide, oxcarbazepine, phenobarbital, phensuximide, primidone, topirimate, trimethadione, zonisamide, saquinavir, ritonavir, indinavir, nelfinavir, and amprenavir.

Claim 21. (original) The method of claim 18, wherein the polynucleotide is at least one member selected from the group consisting of a deoxyribonucleic acid (DNA) molecule, a ribonucleic acid (RNA) molecule, small interfering RNA (siRNA), a ribozyme, an antisense molecule, a morpholino and a plasmid.

Claim 22. (original) The method of claim 21, wherein the DNA is transcribed to yield a ribonucleic acid.

Claim 23. (original) The method of claim 22, wherein the ribonucleic acid is translated to yield a biologically active polypeptide.

Claim 24. (original) The method of claim 18, wherein the polypeptide is at least one member selected from the group consisting of cyclosporin, Angiotensin I, II, or III, enkephalins and their analogs, ACTH, anti-inflammatory peptides I, II, or III, bradykinin, calcitonin, beta-endorphin, dinorphin, leucokinin, leutinizing

hormone releasing hormone (LHRH), insulin, neurokinins, somatostatin, substance P, thyroid releasing hormone (TRH), and vasopressin.

Claim 25. (original) The method of claim 18, wherein the antigen is at least one member selected from the group consisting of a membrane protein, a carbohydrate, envelope glycoproteins from viruses, an animal cell protein, a plant cell protein, a bacterial protein and a parasitic protein.

Claim 26. (original) The method of claim 18, wherein the nutrient is at least one member selected from the group consisting of lycopene, vitamins, minerals, fatty acids, amino acids, fish oils, fish oil extracts, resveratrol, biotin, choline, inositol, ginko, saccharides, a phytochemical or zoochemical, beta-carotene, lutein, zeaxanthine, quercetin, silibinin, perillyl alcohol, genistein, sulfurophane, eicosapentanoic acid, gamma-3, omega-3, gamma 6 and omega-6 fatty acids.

Claim 27. (original) The method of claim 18, wherein the vitamin is at least-one member selected from the group consisting of vitamins A, B, B1, B2, B3, B12, B6, B-complex, C, D, E, and K, vitamin precursors, carotenoids, and beta-carotene.

Claim 28. (original) The method of claim 18, wherein the mineral is at least one member selected from the group consisting of boron, chromium, colloidal minerals, colloidal silver, copper, manganese, potassium, selenium, vanadium, vanadyl sulfate, calcium, magnesium, barium, iron and zinc.

Claim 29. (original) The method of claim 18, wherein the saccharide or sweetener is at least one member selected from the group consisting of saccharine, isomalt, maltodextrine, aspartame, glucose, maltose, dextrose, fructose and sucrose.

Claim 30. (original) The method of claim 18, wherein the flavor substance is an essential oil or an extract.

Claim 31. (original) The method of claim 30, wherein the flavor substance is selected from

the group consisting of oils and extracts of cinnamon, vanilla, almond, peppermint, spearmint, chamomile, geranium, ginger, grapefruit, hyssop, jasmine, lavender, lemon, lemongrass, marjoram, lime, nutmeg, orange, rosemary, sage, rose, thyme, anise, basil, black pepper and tea or tea extracts.

Claim 32. (original) The method of claim 30, wherein the extract is from at least one member selected from the group consisting of an herb, a citrus, a spice and a seed.

Claim 33. (original) The method of claim 1, further comprising introducing an aggregation inhibitor to the liposomes.

Claim 34. (original) The method of claim 33, wherein the aggregation inhibitor is at least one aggregation inhibitor selected from the group of casein, methylcellulose, albumin, serum albumin, bovine serum albumin and rabbit serum albumin.

Claim 35. (original) The method of claim 1, further comprising introducing an aggregation inhibitor to the cochleates.

Claim 36. (original) The method of claim 35, wherein the aggregation inhibitor is at least one aggregation inhibitor selected from the group of casein, methylcellulose, albumin, serum albumin, bovine serum albumin and rabbit serum albumin.

Claim 37. (currently amended) A composition comprising one or more cochleates made by the method of ~~any one of claim[[s]] 1[-36]~~.

Claim 38. (original) A method of treating a subject that can benefit from the administration of a cargo moiety, comprising the step of:
administering the composition of claim 37, such that the cargo moiety is administered to the subject such that the subject is benifited.

Claim 39. (original) The method of treatment according to claim 38, wherein the administration is by a mucosal or a systemic route.

Claim 40. (original) The method of treatment according to claim 39, wherein the administration is at least one mucosal route selected from the group consisting of oral, intranasal, intraocular, intrarectal, intravaginal, topical, buccal, and intrapulmonary.

Claim 41. (original) The method of treatment according to claim 39, wherein the administration is by at least one systemic route selected from the group consisting of intravenous, intramuscular, intrathecal, subcutaneous, transdermal, and intradermal.

Claim 42. (original) The method of claim 38, wherein the cargo moiety is administered to treat at least one disease or disorder selected from the group consisting of inflammation, pain, infection, fungal infection, bacterial infection, viral infection, parasitic disorders, an immune disorder, genetic disorders, degenerative disorders, cancer, proliferative disorders, obesity, depression, hair loss, impotence, hypertension, hypotension, dementia, senile dementia, malnutrition, acute and chronic leukemia and lymphoma, sarcoma, adenoma, carcinomas, epithelial cancers, small cell lung cancer, non-small cell lung cancer, prostate cancer, breast cancer, pancreatic cancer, hepatocellular carcinoma, renal cell carcinoma, biliary cancer, colorectal cancer, ovarian cancer, uterine cancer, melanoma, cervical cancer, testicular cancer, esophageal cancer, gastric cancer, mesothelioma, glioma, glioblastoma, pituitary adenomas, schizophrenia, obsessive compulsive disorder (OCD), bipolar disorder, Alzheimer's disease, Parkinson's disease, cell proliferative disorders, blood coagulation disorders, Dysfibrinogenaemia and hemophilia (A and B), autoimmune disorders, systemic lupus erythematosis, multiple sclerosis, myasthenia gravis, autoimmune hemolytic anemia, autoimmune thrombocytopenia, Grave's disease, allogenic transplant rejection, ankylosing spondylitis, psoriasis, scleroderma, uveitis, eczema, dermatological disorders, hyperlipidemia, hyperglycemia, hypercholesterolemia, cystic fibrosis,

muscular dystrophy, headache, arthritis, rheumatoid arthritis, osteoarthritis, atherosclerosis, acute gout, acute or chronic soft tissue damage, asthma, chronic rhinosinusitis, allergic fungal sinusitis, sinus mycetoma, non-invasive fungus induced mucositis, non-invasive fungus induced intestinal mucositis, chronic otitis media, chronic colitis, inflammatory bowel diseases, ulcerative colitis, and Crohn's disease.

Claim 43. (original) The method of claim 38, wherein the subject can benefit from administration of a nutrient and the cargo moiety is a nutrient.

Claim 44. (original) An article of manufacture comprising packaging material and a lipid contained within the packaging material, wherein the packaging material comprises a label or package insert indicating the use of the lipid for forming cochleates or cochleate compositions of the invention.

Claim 45. (original) The article of manufacture of claim 44, further comprising instructions or guidelines for the formation of cochleates or cochleate compositions of the invention.

Claim 46. (original) The article of manufacture of claim 45, wherein one of the instructions involves mixing a cargo moiety with a solvent and dripping it into a solution of the lipids.

Claim 47. (original) The article of manufacture of claim 44, further comprising a solvent.

Claim 48. (original) The article of manufacture of claim 44, further comprising a cargo moiety.

Claim 49. (original) The article of manufacture of claim 44, further comprising a multivalent cation.

Claim 50. (original) The article of manufacture of claim 44, further comprising a control cargo moiety.

Claim 51. (original) The article of manufacture of claim 44, further comprising a chelating agent.

Claim 52. (original) The article of manufacture of claim 44, further comprising an aggregation inhibitor.

Claim 53. (original) A composition comprising an anhydrous cochleate.

Claim 54. (original) The composition of claim 53, wherein the cochleate comprises a negatively charged lipid, a protonized cargo moiety, and a divalent metal cation.

Claim 55. (original) The composition of claim 54, wherein the protonized cargo moiety is water soluble.

Claim 56. (original) The composition of claim 54, wherein the protonized cargo moiety is a protonized weakly basic cargo moiety.

Claim 57. (original) The composition of claim 54, wherein the protonized cargo moiety is a multivalent cation.

Claim 58. (original) The composition of claim 54, wherein the protonized cargo moiety is a protonized peptide.

Claim 59. (original) The composition of claim 58, wherein the protonized cargo moiety is a protonized protein.

Claim 60. (original) The composition of claim 54, wherein the protonized cargo moiety is a protonized nucleotide.

Claim 61. (original) The composition of claim 60, wherein the protonized nucleotide is at least one member selected from the group consisting of a protonized DNA, a protonized RNA, a protonized morpholino, a protonized siRNA molecule, a protonized ribozyme, a protonized antisense molecule, and a protonized plasmid.

Claim 62. (original) The composition of claim 54, wherein the protonized cargo moiety is an aminoglycoconjugate.

Claim 63. (original) The composition of claim 54, wherein the protonized cargo moiety is a protonized aminoglycoside or a protonized aminoglycopeptide.

Claim 64. (original) The composition of claim 63, wherein the protonized cargo moiety is at least one member selected from the group consisting of protonized vancomycin, teicoplanin, bleomycin, peptidoglycan, ristocetin, sialoglycoproteins, orienticin, avaporcin, helevecardin, galacardin, actinoidin, gentamycin, netilmicin, tobramycin, amikacin, kanamycin A, kanamycin B, neomycin, paromomycin, neamine, streptomycin, dihydrostreptomycin, apramycin, ribostamycin, spectinomycin, and combinations thereof.

Claim 65. (original) The composition of claim 54, wherein the protonized cargo moiety is a protonized echinocandin.

Claim 66. (original) The composition of claim 65, wherein the protonized cargo moiety is at least one member selected from the group consisting of protonized caspofungin, echinocandin B, aculeacin A, micafungin, anidulafungin, cilofungin, pneumocandin and combinations thereof.

Claim 67. (original) The composition of claim 54, wherein the ratio of protonized cargo moiety to lipid is about 2:1 by weight.

Claim 68. (original) The composition of claim 54, wherein the ratio of protonized cargo moiety to lipid is between about 4:1 and about 10:1 by weight.

Claim 69. (original) The composition of claim 53, further comprising a second protonized cargo moiety.

Claim 70. (original) The composition of claim 53, further comprising a cargo moiety.

Claim 71. (original) The composition of claim 70, wherein the cargo moiety is a nutrient.

Claim 72. (original) The composition of claim 71, wherein the nutrient is Vitamin E.

Claim 73. (original) The composition of claim 54, wherein the divalent metal cation is barium or calcium.

Claim 74. (original) The composition of claim 53, further comprising an aggregation inhibitor.

Claim 75. (original) The composition of claim 74, wherein the aggregation inhibitor comprises at least one aggregation inhibitor selected from the group consisting of casein, methylcellulose, albumin, serum albumin, bovine serum albumin and rabbit serum albumin.

Claim 76. (original) The composition of claim 54, wherein the lipid comprises a phospholipid.

Claim 77. (original) The composition of claim 54, wherein the lipid comprises at least one phospholipid selected from the group consisting of a dioleoylphosphatidylserine (DOPS) and a phosphatidylserine (PS).

Claim 78. (currently amended) A pharmaceutical composition comprising the composition of ~~any of~~ claim[[s]] 53[[77]] and a pharmaceutically acceptable carrier.

Claim 79. (currently amended) A method for forming ~~an~~the anhydrous cochleate composition of claim 53 comprising the step of contacting a negatively charged lipid, a protonized cargo moiety and a divalent metal cation, such that a cochleate is formed.

Claim 80. (original) The method of claim 79, comprising the step of acidifying a cargo moiety to form a protonized cargo moiety.

Claim 81. (original) The method of claim 79, comprising the step of adjusting the pH of a solution of the cochleate to maintain a protonized cargo moiety.

Claims 82-101. (canceled)

Claim 102. (original) The method of claim 79, further comprising introducing an aggregation inhibitor to the cochleate.

Claim 103. (original) The method of claim 102, wherein the aggregation inhibitor is introduced to the cochleate before and after the cochleate is formed.

Claim 104. (original) The method of claim 103, wherein the aggregation inhibitor comprises casein and methylcellulose, and the casein is introduced before the cochleate is formed and the methylcellulose is introduced after the cochleate is formed.

Claim 105. (original) The method of claim 79, wherein the lipid comprises a phospholipid.

Claim 106. (original) A method for treating a bacterial infection in a host comprising the step of administering the composition of claim 53 to a host such that the bacterial infection is treated.

Claim 107. (original) The method of claim 106, wherein the host of the bacterial infection is a cell, a tissue or an organ.

Claim 108. (original) A method for treating a fungal infection in a host comprising the step of administering the composition of claim 53 to a host such that the fungal infection is treated.

Claim 109. (original) The method of claim 108, wherein the host of the fungal infection is a cell, a tissue or an organ.

Claim 110. (original) A method of treating a subject that can benefit from the administration of a protonized cargo moiety, comprising the step of:

administering the composition of claim 53 comprising a protonized cargo moiety, such that the protonized cargo moiety is administered to the subject and such that the subject is benefited.

Claims 111-114. (canceled)

Claim 115. (original) A cochleate composition comprising:
a plurality of cochleates; and
an aggregation inhibitor.

Claim 116. (original) The composition of claim 115, further comprising a cargo moiety.

Claim 117. (original) The composition of claim 115, wherein the aggregation inhibitor coats the cochleate.

Claim 118. (original) The composition of claim 115, wherein the aggregation inhibitor is at least one aggregation inhibitor selected from the group consisting of a protein, a peptide, a polysaccharide, a milk or milk product, a polymer, a gum, a wax and a resin.

Claim 119. (original) The composition of claim 115, wherein the aggregation inhibitor comprises at least one aggregation inhibitor selected from the group consisting of: casein, κ -casein, milk, albumin, serum albumin, bovine serum albumin, rabbit

serum albumin, methylcellulose, ethylcellulose, propylcellulose, hydroxycellulose, hydroxymethyl cellulose, hydroxyethyl cellulose, hydroxypropyl cellulose, hydroxypropylmethyl cellulose, polyvinyl pyrrolidone, carboxymethyl cellulose, carboxyethyl cellulose, pullulan, polyvinyl alcohol, sodium alginate, polyethylene glycol, polyethylene oxide, xanthan gum, tragacanth gum, guar gum, acacia gum, arabic gum, polyacrylic acid, methylmethacrylate copolymer, carboxyvinyl polymer, amylose, high amylose starch, hydroxypropylated high amylose starch, dextrin, pectin, chitin, chitosan, levan, elsinan, collagen, gelatin, zein, gluten, carrageenan, carnauba wax, shellac, latex polymers, milk protein isolate, soy protein isolate, and whey protein isolate.

Claim 120. (original) The composition of claim 115, wherein the aggregation inhibitor comprises at least one aggregation inhibitor selected from the group consisting of casein, methylcellulose, albumin, serum albumin, bovine serum albumin and rabbit serum albumin.

Claim 121. (original) The composition of claim 115, wherein the plurality of cochleates has a mean diameter of less than about 600 nm.

Claim 122. (original) The composition of any one of claim 115, wherein the plurality of cochleates has a mean diameter of less than about 500 nm.

Claim 123. (original) The composition of any one of claim 115, wherein the size distribution of the plurality of cochleates is less than about 700 nm.

Claim 124. (original) The composition of any one of claim 115, wherein the size distribution of the plurality of cochleates is less than about 550 nm.

Claims 125-141. (canceled)

Claim 142. (currently amended) The composition of claim ~~125~~ 116, wherein the cochleate further comprises an antifungal drug.

Claim 143. (original) The composition of claim 142, wherein the antifungal drug is at least one member selected from the group consisting of Amphotericin B, miconazole nitrate, ketoconazole, itraconazole, fluconazole, griseofulvin, clotrimazole, econazole, terconazole, butoconazole, oxiconazole, sulconazole, saperconazole, voriconazole, ciclopirox olamine, haloprogin, tolnaftate, naftifine, terbinafine hydrochloride, morpholines, flucytosine, natamycin, butenafine, undecylenic acid, Whitefield's ointment, propionic acid, caprylic acid, clioquinol, nystatin, selenium sulfide, caspofungin, echinocandin B, aculeacin A, micafungin, anidulafungin, cilofungin, and pneumocandin.

Claim 144. (original) The composition of claim 142, wherein the aggregation inhibitor comprises at least one aggregation inhibitor selected from the group consisting of casein, methylcellulose, albumin, serum albumin, bovine serum albumin and rabbit serum albumin.

Claim 145. (original) The composition of claim 142, wherein the antifungal is Amphotericin B and the aggregation inhibitor comprises methylcellulose.

Claim 146. (original) The composition of claim 142, wherein the composition is in the form of a nasal spray.

Claim 147. (original) A cochleate composition comprising a first plurality of cochleates with a first mean particle size and a second plurality of cochleates with a second mean particle size, wherein the second mean particle size is different from the first mean particle size.

Claim 148. (original) The composition of claim 147, further comprising at least one cargo moiety.

Claim 149. (original) The composition of claim 147, wherein the first plurality of cochleates and the second plurality of cochleates comprise the same cargo moiety.

Claim 150. (original) The composition of claim 147, wherein the first plurality of cochleates contains a different cargo moiety than the second plurality of cochleates.

Claim 151. (original) The composition of claim 147, further comprising a third plurality of cochleates with a third mean particle size, wherein the third mean particle size is different from both the first and the second mean particle sizes.

Claim 152. (original) The composition of claim 151, further comprising a cargo moiety.

Claim 153. (canceled)

Claim 154. (original) A pharmaceutical composition comprising the cochleate or cochleate composition of claim 115 and a pharmaceutically acceptable carrier.

Claim 155. (original) A method of treating a subject that can benefit from the administration of a cargo moiety, comprising the step of:
administering the cochleate composition of claim 116, such that the cargo moiety is administered to the subject such that the subject is benefited.

Claim 156. (original) The method of treatment according to claim 155, wherein the aggregation inhibitor comprises at least one aggregation inhibitor selected from the group consisting of casein, methylcellulose, albumin, serum albumin, bovine serum albumin and rabbit serum albumin.

Claim 157. (original) The method of treatment according to claim 155, wherein the administration is by a mucosal or a systemic route.

Claim 158. (original) The method of treatment according to claim 155, wherein the cochleate composition is delivered in a form selected from the group consisting of a solid, a capsule, a cachet, a pill, a tablet, a gelcap, a crystalline substance, a lozenge, a powder, a granule, a dragee, an electuary, a pastille, a pessary, a tampon, a

suppository, a patch, a gel, a paste, an ointment, a salve, a cream, a foam, a lotion, a partial liquid, an elixir, a mouth wash, a syrup, a spray, a nebulae, a mist, an atomized vapor, an irrigant, an aerosol, a tincture, a wash, an inhalant, a solution or a suspension in an aqueous or non-aqueous liquid, and an oil-in-water or water-in-oil liquid emulsion.

Claim 159. (original) The method of treatment according to claim 155, wherein the administration is a mucosal route selected from the group consisting of oral, intranasal, intraocular, intrarectal, intravaginal, topical, buccal and intrapulmonary.

Claim 160. (original) The method of treatment according to claim 155, wherein the administration is intranasal.

Claim 161. (original) The method of treatment according to claim 160, wherein the cochleate composition is delivered in a form selected from the group consisting of a spray, a nebulae, a mist, an atomized vapor, an irrigant, an aerosol, a wash, and an inhalant.

Claims 162-163. (canceled)

Claim 164. (original) The method of treatment according to claim 155, wherein the aggregation inhibitor comprises methylcellulose, the cargo moiety is Amphotericin B, and the cochleate composition is delivered in the form of a nasal spray.

Claim 165. (original) The method of claim 164, wherein the cochleate composition is used to treat rhinosinusitis

Claim 166. (original) The method of treatment according to claim 155, wherein the administration is by a systemic route selected from the group consisting of

intravenous, intramuscular, intrathecal, subcutaneous, transdermal and intradermal.

Claims 167-168. (canceled)

Claim 169. (currently amended) A method of making [[a]] the cochleate composition of claim 115 comprising the step of:

introducing an aggregation inhibitor to a cochleate composition.

Claim 170. (original) The method of claim 169, comprising the step of introducing the aggregation inhibitor to a composition of cochleates.

Claim 171. (original) The method of claim 169, comprising the step of introducing the aggregation inhibitor to a composition of aggregated cochleates.

Claim 172. (original) The method of claim 169, comprising the steps of:
introducing the aggregation inhibitor to a composition of liposomes; and
inducing formation of the cochleate composition.

Claim 173. (original) The method of claim 169, comprising the steps of:
introducing the aggregation inhibitor to a solution of lipids;
forming a liposomes; and
inducing formation of the cochleate composition.

Claim 174. (original) The method of claim 169, wherein the aggregation inhibitor is added in an aggregation inhibitor to lipid ratio of between about 4:1 and about 0.1:1 by weight.

Claim 175. (original) The method of claim 169, wherein the aggregation inhibitor is added in an aggregation inhibitor to lipid ratio of about 1:1 by weight.

Claim 176. (original) The method of claim 169, wherein the aggregation inhibitor is added in an amount suitable for modulating the resulting cochleate to the desired size range.

Claims 177- 200. (canceled)

Claim 201. (currently amended) A kit for the manufacture of [[a]] cochleates, comprising:
an aggregation inhibitor; and
an instruction for formation of cochleates with the aggregation inhibitor.

Claim 202. (original) The kit of claim 201, comprising at least one component selected from the group consisting of: a lipid, a phospholipid, a cation, a cargo moiety, and a solvent.

Claim 203. (new) A method for forming a cargo moiety-cochleate comprising:
introducing a cargo moiety to a lipid in the presence of a solvent;
adding an aqueous solution to form a liposome; and
precipitating the liposome to form a cargo moiety-cochleate.

Claim 204. (new) The method of claim 203, wherein the lipid is in an aqueous solution comprising a solvent.

Claim 205. (new) The method of claim 203, wherein the cargo moiety introduced in the form of a powder or a liquid.

Claim 206. (new) The method of claim 203, wherein the lipid is in the form of a powder.

Claim 207. (new) The method of claim 203, wherein the cargo moiety is in a solution comprising the solvent.

Claim 208. (new) The method of claim 207, wherein the solution is added by dropwise addition, continuous flow addition, or in a bolus.

Claim 209. (new) The method of claim 203, comprising precipitating the liposome with a multivalent cation to form a cargo moiety-cochleate.

Claim 210. (new) The method of claim 203, wherein the ratio of the lipid to the cargo moiety is between about 0.5:1 and about 20:1.

Claim 211. (new) The method of claim 203, wherein the ratio of the lipid to the cargo moiety is between about 20:1 and about 20,000:1.